UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,538	10/21/2003	Nahoko Takano	017446-0336	9327

22428 7590 07/19/2006

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
MILLER, BRANDON J	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/689,538	TAKANO ET AL.	
	Examiner	Art Unit	
	Brandon J. Miller	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☒ Claim(s) *15,16 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 23 is rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (US 6,674,739 B1).

Regarding claim 23 Lee teaches a mobile communication system comprising: a base station; and a mobile station (see col. 1, lines 32-35). Lee teaches a radio channel set between the base station and the mobile station, and which receives or transmits a signal via a dedicated channel included in the radio channel (see col. 5, lines 10-18 & 53-56 and col. 6, lines 14-21). Lee teaches wherein the base station comprises a base station transmitting/receiving section, which sets the radio channel to the mobile station (see col. 10, lines 6-11 & 19-25). Lee teaches a base station state update information that indicates update of a packet receivable state in the mobile station and notifies the mobile station of the control 8inormaiton for packet reception (see col. 6, lines 10-21 & 26-43). Lee teaches a base station packet transmission control section which generates control information for packet reception and which notifies the mobile station of the control information for packet reception (see col. 5, lines 40-51 and col. 6, lines 50-56). Lee

teaches a base station information retaining section which continuously holds dedicated physical channel setting information in the radio channel in a suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25). Lee teaches a mobile station that comprises a mobile station transmitting/receiving section, which sets the radio channel to the base station (see col. 7, lines 41-58). Lee teaches the mobile transmitting section which transmits signals via the dedicated channel and the mobile station receiving section which receives control information for packet reception when the mobile station is in an active state and receiving a packet when the control information is addressed to the mobile station, and receiving the signals via the dedicated channel (see col. 6, lines 10-19 & 50-58). Lee teaches a mobile station state updating section which sets, on the basis of the transmission/reception state update information, one of an active state in which the packet can be received and the suspend state in which the packet cannot be received (see col. 6, lines 10-21 & 26-43). Lee teaches a mobile station information retaining section which continuously holds the dedicated physical channel setting information in the radio channel in the suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-7, 9, 12-14, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,674,739 B1) in view of Seo (US 6,463,044 B1).

Regarding claim 1 Lee teaches a mobile communication system comprising: a base station; and a mobile station (see col. 1, lines 32-35). Lee teaches a radio channel set between the base station and the mobile station, and a packet being transmitted from the base station to the mobile station by using the radio channel (see col. 5, lines 10-18 & 53-56). Lee teaches wherein the base station comprises a base station transmitting/receiving section, which sets the radio channel to the mobile station (see col. 10, lines 6-11 & 19-25). Lee teaches a base station state updating section which generates transmission/reception state update information that indicates update of a packet receivable state in the mobile station and notifies the mobile station of the transmission/reception state update information (see col. 6, lines 10-21 & 26-43). Lee teaches a base station information retaining section which continuously holds dedicated physical channel setting information in the radio channel in a suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25). Lee teaches a mobile station that comprises a mobile station transmitting/receiving section, which sets the radio channel to the base station (see col. 7, lines 41-58). Lee teaches a mobile station state updating section which sets, on the basis of the transmission/reception state update information, one of an active state in which the packet can be received and the suspend state in which the packet cannot be received (see col. 6, lines 10-21 & 26-43). Lee teaches a mobile station information retaining section which continuously holds the dedicated physical channel setting information in the radio channel in the suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25). Lee does not specifically teach a base station buffer that temporarily stores packets to be transmitted over the radio channel to the mobile station and wherein the radio channel is held in the suspend state by said base station information storage

section at all times when the base station buffer is empty. Seo teaches a base station buffer that temporarily stores packets to be transmitted over a radio channel to a mobile station (see abstract and col. 4, lines 10-15). Seo teaches dynamically managing state transitions, including a suspend state, according to the size of transmission data stored in the base station buffer (see abstract, col. 4, lines 10-15, and FIG. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a base station buffer that temporarily stores packets to be transmitted over the radio channel to the mobile station and wherein the radio channel is held in the suspend state by said base station information storage section at all times when the base station buffer is empty because Lee is concerned with increasing transmission efficiency (see col. 3, lines 38-43) and the combination would allow for improved quality of service in mobile communications with packet service.

Regarding claim 2 Lee teaches wherein when the mobile station state updating section receives a change instruction to the active state, the mobile station transmitting/receiving section starts at least one of standing by for the packet and transmission/reception of dedicated physical channel data to be transmitted by a dedicated physical channel (see col. 6, lines 10-19).

Regarding claim 3 Lee teaches wherein when the mobile station state updating section receives a change instruction to the suspend state, the mobile station transmitting/receiving section stops at least one of transmission of the dedicated physical channel data and reception of the dedicated physical channel data while continuously holding the setting information in the radio channel (see col. 6, lines 19-26).

Regarding claim 4 Lee teaches wherein when the base station is in the suspend state, the base station transmitting/receiving section stops at least one of transmission of dedicated

physical channel data and reception of the dedicated physical channel data while continuously holding the setting information in the radio channel (see col. 6, lines 19-26).

Regarding claim 6 Lee teaches a control signal generation section, which when a change instruction to the active state is normally received, transmits to the base station a notification reception confirmation signal of the change instruction (see col. 6, lines 16-19 & 50-56).

Regarding claim 7 lee teaches using an existing signal as the notification reception confirmation signal (see col. 6, lines 57-65).

Regarding claim 9 Lee teaches a stopping transmission of the packet to the mobile station when no notification reception confirmation signal can be received (see col. 6, lines 50-56 and col. 11, lines 48-57).

Regarding claim 12 Lee teaches the mobile station transmitting/receiving section starts one of the transmission of the dedicated physical channel and reception of the dedicated physical channel on the basis of the setting information continuously held when the mobile station changes from a suspended state to the active state (see col. 6, lines 19-26 & 30-32).

Regarding claim 13 Lee teaches a base station state updating section transmits the transmission/reception state update information at a timing known in advance (see col. 6, lines 16-21).

Regarding claim 14 Lee teaches a mobile station which sets a radio channel to a base station and receives a packet transmitted from the base station by using the radio control channel (see col. 5, lines 10-18 & 53-56). Lee teaches a mobile station transmitting/receiving section, which sets the radio channel to the base station (see col. 7, lines 41-58). Lee teaches a mobile station state updating section which sets, in accordance with transmission/reception state update

information that is transmitted from the base station and indicates update of a packet receivable state, one of an active state in which the packet can be received and a suspend state in which the packet cannot be received (see col. 6, lines 10-21 & 26-43). Lee teaches a mobile station information retaining section which continuously holds the dedicated physical channel setting information in the radio channel in the suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25). Lee does not specifically teach a wherein the suspend state is output by said base station when no packets are currently stored at the base station for transmission to the mobile station over the radio channel. Seo teaches a base station buffer that temporarily stores packets to be transmitted over a radio channel to a mobile station (see abstract and col. 4, lines 10-15). Seo teaches a base station dynamically managing state transitions, including a suspend state, according to the size of transmission data stored at the base station (see abstract, col. 4, lines 10-15, and FIG. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the suspend state is output by said base station when no packets are currently stored at the base station for transmission to the mobile station over the radio channel because Lee is concerned with increasing transmission efficiency (see col. 3, lines 38-43) and the combination would allow for improved quality of service in mobile communications with packet service.

Regarding claim 17 Lee teaches a base station which sets a radio channel to a mobile station and transmits a packet to the mobile station by using the radio channel (see col. 5, lines 10-18 & 53-56). Lee teaches a base station transmitting/receiving section, which sets the radio channel to the mobile station (see col. 10, lines 6-11 & 19-25). Lee teaches a base station state updating section which notifies the mobile station of transmission/reception state update

information that indicates update of a packet receivable state and sets the mobile station in one of an active state in which the packet can be received and a suspend state in which the packet cannot be received (see col. 6, lines 10-21 & 26-43). Lee teaches a base station information retaining section which continuously holds dedicated physical channel setting information in the radio channel in a suspend state (see col. 6, lines 21-26). Lee teaches retaining information in a memory (see col. 10, lines 23-25). Lee does not specifically teach a base station buffer that temporarily stores packets to be transmitted over the radio channel to the mobile station and wherein the radio channel is held in the suspend state by said base station information storage section at all times when the base station buffer is empty. Seo teaches a base station buffer that temporarily stores packets to be transmitted over a radio channel to a mobile station (see abstract and col. 4, lines 10-15). Seo teaches dynamically managing state transitions, including a suspend state, according to the size of transmission data stored in the base station buffer (see abstract, col. 4, lines 10-15, and FIG. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a base station buffer that temporarily stores packets to be transmitted over the radio channel to the mobile station and wherein the radio channel is held in the suspend state by said base station information storage section at all times when the base station buffer is empty because Lee is concerned with increasing transmission efficiency (see col. 3, lines 38-43) and the combination would allow for improved quality of service in mobile communications with packet service.

Regarding claim 20 Lee teaches a packet communication method for a mobile communication (see col. 1, lines 32-35 and col. 5, lines 10-15). Lee teaches a radio channel set between the base station and the mobile station, and a packet being transmitted from the base

station to the mobile station by using the radio channel (see col. 5, lines 10-18 & 53-56). Lee teaches causing the base station to notify the mobile station of transmitting/reception state update information that indicates update of a packet receivable state in the mobile station (see col. 10, lines 6-11 & 19-25). Lee teaches setting, on the basis of the transmission/reception state update information, one of an active state in which the mobile station can receive the packet and a suspend state in which the packet cannot be received (see col. 6, lines 10-21 & 26-43). Lee teaches causing the base station and the mobile station to continuously holds the dedicated physical channel setting information in the radio channel in the suspend state (see col. 6, lines 21-26). Lee does not specifically teach wherein the radio channel is held in the suspend state at all times when a base station buffer that is configured to temporarily hold packets corresponding to user information destined for the mobile station is empty. Seo teaches a base station buffer that temporarily stores packets to be transmitted over a radio channel to a mobile station (see abstract and col. 4, lines 10-15). Seo teaches dynamically managing state transitions, including a suspend state, according to the size of transmission data stored in the base station buffer (see abstract, col. 4, lines 10-15, and FIG. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the radio channel is held in the suspend state at all times when a base station buffer that is configured to temporarily hold packets corresponding to user information destined for the mobile station is empty because Lee is concerned with increasing transmission efficiency (see col. 3, lines 38-43) and the combination would allow for improved quality of service in mobile communications with packet service.

Claims 5, 8, 10-11, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,674,739 B1) in view of Seo (US 6,463,044 B1) and Kumar et al. (US 6,757,270 B1).

Regarding claim 5 Lee and Seo teach a device as recited in claim 1 except for wherein the mobile station state updating section sets the active state when the transmission/reception state update information cannot be normally received. Kumar teaches the mobile station updating section sets the active state when the transmission/reception state update information has not been received (see col. 11, lines 66-67 and col. 12, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include wherein the mobile station state updating section sets the active state when the transmission/reception state update information cannot be normally received because this would allow for improved communication on common channels in a communication system.

Regarding claim 8 Lee and Seo teach a device as recited in claim 7 except for using a channel quality indication representing a reception quality of a downlink channel as the notification reception confirmation signal. Lee does teach using a channel quality indication (see col. 10, lines 54-57). Lee does teach a notification reception confirmation signal (see col. 6, lines 50-56). Kumar teaches using a channel quality indication representing a reception quality of a downlink channel (see col. 9, lines 47-55). It would have been obvious to one of ordinary skill in the art at to make the device adapt to include using a channel quality indication representing a reception quality of a downlink channel as the notification reception confirmation signal because this would allow for improved communication on common channels in a communication system.

Regarding claim 10 Lee and Seo teach a device as recited in claim 6 except for notifying the base station of the channel quality indication immediately before receiving the transmission/reception state update information. Kumar teaches notifying the base station of a channel quality indication (see col. 9, lines 47-55). It would have been obvious to one of ordinary skill in the art at to make the device adapt to include notifying the base station of the channel quality indication immediately before receiving the transmission/reception state update information because this would allow for improved communication on common channels in a communication system.

Regarding claim 11 Lee and Seo teach a device as recited in claim 1 except for a priority determination section which preferentially selects a mobile station having a high channel quality and notifies the mobile station of a change instruction to the active state. Lee does teaches notifying the mobile of a change instruction to the active state (see col. 6, lines 10-16 & 37-41) Kumar teaches a priority determination section which preferentially selects a mobile station based on channel quality (see col. 13, lines 45-52). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a priority determination section which preferentially selects a mobile station having a high channel quality and notifies the mobile station of a change instruction to the active state because this would allow for improved communication on common channels in a communication system.

Regarding claim 18 Lee and Seo teach a device as recited in claim 17 except for a base station user separation section which separates a reception signal from the base station transmitting/receiving section into user information and control information, and a packet control section which executes transmission control of the packet on the basis of the control information

from the base station user data separation section and mobile station information from the base station state updating section, and a signal synthesizing section which synthesizes user information obtained from at least one packet stored in the base station buffer and a state update information signal from the base station state updating section. Seo does teach a base station buffer that temporarily stores packets to be transmitted over a radio channel to a mobile station (see abstract and col. 4, lines 10-15). Kumar teaches a separation section, which separates a reception signal from the base station transmitting/receiving section into user information and control information (see col. 9, lines 24-40). Kumar teaches executing control of the packet on the basis of the control information from the base station user data separation section and mobile station information from the base station state updating section (see col. 8, lines 45-65). Kumar teaches synchronization of information from the base station updating section (see col. 3, lines 3-12). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a base station user separation section which separates a reception signal from the base station transmitting/receiving section into user information and control information, and a buffer which stores the user information, and a packet control section which executes transmission control of the packet on the basis of the control information from the base station user data separation section and mobile station information from the base station state updating section, and a signal synthesizing section which synthesizes user information from the buffer and a state update information signal from the base station state updating section because this would allow for a transmission delay reduction of a common channel for high speed packet data service.

Regarding claim 19 Lee, Seo, and Kumar teach a device as recited in claim 18 except for deciding a scheduling/transmission mode, and the base station user data separation section comprises a UL data determination section which determines presence/absence of transmission of the dedicated physical channel data (UL). Lee does teach determining presence/absence of transmission of the dedicated physical channel (see col. 6, lines 19-31). Kumar does teach deciding an scheduling/transmission mode (see col. 9, lines 15-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include deciding a scheduling/transmission mode, and the base station user data separation section comprises a UL data determination section which determines presence/absence of transmission of the dedicated physical channel data (UL) because this would allow for a transmission delay reduction of a common channel for high speed packet data service.

Claims 15-16 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,674,739 B1) in view of Seo (US 6,463,044 B1), Kumar et al. (US 6,757,270 B1), and Ostman et al. (US 2003/0039230 A1).

Regarding claim 15 Lee and Seo teach a device as recited in claim 14 except for a mobile station user separation section which separates a reception signal from the mobile station transmitting/receiving section into user information and control information, and a reception quality measuring section which measures a reception quality of a CPICH from the mobile station transmitting/receiving section, and a packet reception determination section which determines, on the basis of the control information from said mobile station user data separation section, one of presence/absence of the control information of an HS-SCCH and presence/absence of normal reception of the packet from the base station, and a packet control

signal generation section which, when a change instruction to the active state is normally received, transmits a notification reception confirmation signal of the change instruction to the base station, and a signal synthesizing section which synthesizes a notification reception confirmation signal and an external signal and transmits a DPCH (UL) and an HS-DPCCH. Lee does teach when a change instruction to the active state is normally received, transmitting a notification reception confirmation signal of the change instruction to the base station (see col. 6, lines 16-19 & 51-58). Kumar does teach a mobile station separation section, which separates a reception signal from the mobile station transmitting/receiving section into user information and control information (see col. 9, lines 24-40). Kumar does teach a reception quality measuring section which measures a reception quality from the mobile station transmitting/receiving section (see col. 9, lines 46-55). Kumar does teach a packet reception determination section which determines, on the basis of the control information from said mobile station user data separation section, one of presence/absence of the control information and presence/absence of normal reception of the packet from the base station (see col. 8, lines 45-65). Ostman teaches measuring a CPICH from the mobile station transmitting/receiving section (see paragraph [0021]). Ostman teaches one of presence/absence of the control information of an HS-SCCH (see paragraph [0011] & [0012]). Ostman teaches transmitting a DPCH (UL) and an HS-DPCCH (see paragraph [0009]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a mobile station user separation section which separates a reception signal from the mobile station transmitting/receiving section into user information and control information, and a reception quality measuring section which measures a reception quality of a CPICH from the mobile station transmitting/receiving section,

and a packet reception determination section which determines, on the basis of the control information from said mobile station user data separation section, one of presence/absence of the control information of an HS-SCCH and presence/absence of normal reception of the packet from the base station, and a packet control signal generation section which, when a change instruction to the active state is normally received, transmits a notification reception confirmation signal of the change instruction to the base station, and a signal synthesizing section which synthesizes a notification reception confirmation signal and an external signal and transmits a DPCH (UL) and an HS-DPCCH because this would allow for a transmission delay reduction of a common channel for high speed packet data service.

Regarding claim 16 Lee, Seo, Kumar, and Ostman teach a device as recited in claim 15 except for a mobile station ID determination section which detects a mobile station ID information contained in the HS-SCCH and determines whether the mobile station ID information coincides with a mobile station ID of the mobile station, and a DL data determination section which determines presence/absence of transmission of the dedicated physical channel data (DL). Lee does teach a mobile station ID determination section which detects a mobile station ID information and determines whether the mobile station ID information coincides with a mobile station ID of the mobile station (see col. 9, lines 28-44). Lee does teach determining presence/absence of transmission of the dedicated physical channel (see col. 6, lines 19-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a mobile station ID determination section which detects a mobile station ID information contained in the HS-SCCH and determines whether the mobile station ID information coincides with a mobile station ID of the mobile

station, and a DL data determination section which determines presence/absence of transmission of the dedicated physical channel data (DL) because this would allow for a transmission delay reduction of a common channel for high speed packet data service.

Regarding claim 21 Lee and Seo teach a device as recited in claim 1 except for transmission/reception state update information that is transmitted over a High-Speed Shared Control Channel that is set up between the base station and the mobile station, and wherein the mobile station identification information is also transmitted over the High-Speed Shared Control Channel at predetermined periodic intervals. Lee does teach when a change instruction to the active state is normally received, transmitting a notification reception confirmation signal of the change instruction to the base station (see col. 6, lines 16-19 & 51-58). Lee does teach mobile station ID information (see col. 9, lines 28-32). Ostman teaches transmission over a High-Speed Shared Control Channel that is set up between the base station and the mobile station (see paragraph [0001], [0011] & [0012]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include transmission/reception state update information that is transmitted over a High-Speed Shared Control Channel that is set up between the base station and the mobile station, and wherein the mobile station identification information is also transmitted over the High-Speed Shared Control Channel at predetermined periodic intervals because this would allow for a transmission delay reduction of a common channel for high speed packet data service.

Regarding claim 22 Lee, Seo, Kumar, and Ostman teach a device as recited in claim 21 and is rejected given the same reasoning as above.

Claim Objections

Claims 15, 16, and 19 are objected to because of the following informalities: The claimed limitations "CPICH", "HS-SCCH", "DPCH", "UL", "DL" and "HS-DPCCH" are in abbreviation form, which do not clearly define what the claimed limitations stand for. For example it would be more clarifying if the application can specify in the claimed limitations such that to replace the first occurrence of "HS-SCCH" as – High-Speed Shared Control Channel (HS-SCCH)---. Appropriate correction is required.

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyamoto et al. Pub. No.: US 2002/0002063 A1 discloses a base station control equipment, radio base station equipment, radio terminal equipment, and mobile communication system.

Johnson et al. U.S. Patent No. 6,804,520 B1 discloses a temporary service interruption for high-speed data transfer.

Pernice et al. U.S. Patent No. 5,956,329 discloses a method of packet-wise data transmission in a mobile radio network.

Suzuki et al. Pub. No.: US 2002/0172178 A1 discloses a radio base station/radio base station controller equipped with inactivity timer, mobile station, and state control method.

Yoshida et al. Pub. No.: US 2002/0068588 A1 discloses a wireless base station and packet transfer apparatus for dynamically controlling data transmission rate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 13, 2006

GEORGE ENG
SUPERVISORY PATENT EXAMINER